BIOCHEMISTRY

Volume 51, Numbers 1-12, 1986

(A translation of *Biokhimiya*)

Volume 51, Number 1, Part 1 January, 1986

		Engl./Russ.
Shikimate Dehydrogenase from *Pinus sylvestris* L. Needles — V. I. Osipov and I. V. Shein.	1	9
Regulation of the Methanol Metabolism in a Mutant of the Yeast *Pichia pinus* with Defective Isocitrate Lyase — A. A. Sibirnyi, V. I. Titorenko, S. V. Benevolenskii, and I. I. Tolstorukov	7	16
Formation of Lauric Acid and NADH in the Oxidation of Dodecanol and Dodecanal by Membrane Fractions of the Yeast *Candida maltosa*, Cultured on Hexadecane — V. I. Krauzova, T. N. Kuvichkina, A. A. Sharyshev, I. B. Romanova, and A. B. Lozinov	13	23
Influence of Sheep Haptoglobin on the Hemoglobin Molecule in Hp-Hb Complex — R. U. Beisembaeva and R. Zh. Dzhusupova	18	28
Formation of Various Spectral Forms of Pheophytin in Chloroplasts in Acid Media — N. N. Lebedev, E. V. Pakshina, P. Shiffel, and A. A. Krasnovskii	22	33
Phospholipase D of *Streptoverticillium cinnamoneum* and Its Properties — I. K. Streikuvene, G. I. Nekrashaite, V. V. Kulene, A. A. Glemzha, and I. I. Peslyakas.	28	39
Production of the Purified 11S Oligomer of the Inclusion Body Protein of Nuclear Polyhedrosis Virus of the Silkworm *Bombyx mori* — V. V. Lylo and S. B. Serebryanyi.	34	45
Catalytic Properties of Monooxygenase of Isolated Immunocompetent Cells — N. Ya. Golovenko, B. N. Galkin, and T. O. Filippova	39	51
Peculiarities of the Inhibition of the Pyruvate Dehydrogenase Complex by Thiamine Thiazolone Diphosphate *in Vitro* and in Intact Mitochondria — G. M. Yakovleva, S. A. Strumilo, B. I. Gorenshtein, and Yu. M. Ostrovskii	47	59
Isolation of Neutral Proteinase of the Ribosomes (Cathepsin R) — V. S. Bylinkina	53	65
Vitamin A and Lipid Peroxidation: The Influence of a Retinol Deficiency — I. Ya. Kon', L. Sh. Gorgoshidze, O. N. Vasil'eva, and S. N. Kulakova.	57	70
Changes in cAMP Reception in the Cytosol of the Developing Rat Kidney — M. N. Zelenina, E. I. Solenov, and L. N. Ivanova.	64	77
Influence of Various Contents of Thyroid Hormones on the Fatty Acid Composition of the Lipids of Rat Liver Mitochondria — G. Ismailkhodzhaeva, V. T. Bornikov, A. I. Gagel'gans, and T. S. Saatov	66	80

Volume 51, Number 1, Part 2 January, 1986

Structure of the Genomes of Turnip (*Brassica campestris*), *Arabidopsis thaliana*, and Their Somatic Hybrid — G. P. Miroshnichenko, R. A. Volkov, and N. V. Borisyuk.	71	84
Energy Characteristics of the Transport of Monovalent Cations in Ascites Tumor Cells — S. D. Kaz'min and I. M. Danko.	80	95

Study of the Interaction of Subunits of cAMP-Dependent Protein Kinase with the Structural Elements of the Nucleus — A. I. Glukhov, M. V. Nesterova, V. L. Bukhman, and E. S. Severin 87 103
Binding of Triiodothyronine to Rat Liver Nuclear Matrix. Influence of Thyroid Hormones on the Phosphorylation of Nuclear Matrix Proteins — A. T. Adylova and B. A. Atakhanova 94 112
Purification and Properties of α-Amylase of *Thermoactinomyces vulgaris* Strain 42 — Z. T. Abramov, I. A. Tsaplina, V. M. Stepanov, and I. G. Loginova 100 118
Effects of Lipids and Substrates on the Kinetics of the Complex Formation of Ferrocytochrome P-450 with CO — R. M. Davydov, O. Yu. Khanina, S. Yagofarov, V. Yu. Uvarov, and A. I. Archakov . 106 125
pH Dependence of the Bioluminescence Spectra and Kinetic Constants of Luciferase of the Firefly *Luciola mingrelica* — E. I. Dement'eva, L. Yu. Brovko, E. N. Druzhinina, O. A. Gandel'man, and N. N. Ugarova 111 130
Glucose Metabolism and Template Synthesis in the Mitotic Cycle of Diploid Human Fibroblasts — S. B. Alekseev, L. K. Ébralidze, L. G. Stepanova, and P. Ya. Boikov 120 140
Apurine-Apyrimidine DNA-Endonuclear Activity of Cytochrome C and Pancreatic RNase — O. K. Kaboev, L. A. Luchkina and M. L. Bekker. 125 146
Mechanism of the Thermoinduced Functional Uncoupling of the Calcium Pump in Skeletal Muscle Sarcoplasmic Reticulum — A. A. Boldyrev, P. J. Quinn, and V. I. Lushchak. 129 150
Change in the Amount of Carnosine in Muscles Working in Various Systems of Stimulation — A. M. Dupin and S. L. Stvolinskii. . . . 137 160

Volume 51, Number 2, Part 1 February, 1986

Regulatory Site of Inorganic Pyrophosphatase. Nonhyperbolic Kinetics of Enzymatic Reaction at Low Substrate Concentrations — A. R. Pavlov, A. A. Baikov, and S. M. Avaeva. 141 179
Activation of Cellulases from Different Sources by Actin — A. A. Klesov, A. V. Bolobova, M. V. Ostrovskaya, and B. F. Poglazov 149 188
Analysis of Proteinase Inhibitors from Wheat Grain by Method of Gelatin Replicas — A. V. Konarev 154 195
Regulatory Site of Inorganic Pyrophosphatase. Interaction with Substrate Analogs — A. A. Baikov, A. R. Pavlov, and S. M. Avaeva 160 202
Immunochemical Properties of Polymeric Ovine Haptoglobin (HpC) — R. U. Beisembaeva and G. M. Abilova 169 212
Identification of Different Hydrophobic Zones of Microsomal Membrane Containing Cytochrome P-450 "Binding Sites" for Type I and II Substrates — I. B. Tsyrlov and N. E. Polyakova 172 216
Mechanism of Activating Effect of Detergents and Chelators on Na,K-ATPase of Anuclear Erythrocyte Ghosts — A. M. Kazennov, M. N. Maslova, and A. D. Shalabodov 179 224
Role of Quinate Dehydrogenase in Quinic Acid Metabolism in Conifers — V. I. Osipov and I. V. Shein. 184 230
Study of Topography of Aminophospholipids in Photoreceptor Membrane — V. P. Chelomin and V. A. Tyurin 190 237
Effect of Retinol Deficiency on Activity and Solubilization of Some Membrane Enzymes from Rat Liver Endoplasmic Reticulum — N. G. Bogdanov, A. A. Pentyuk, V. I. Gutsol, and N. B. Lutsyuk 194 242
Characteristics of Enzyme Hydrolyzing Natural Covalent Bond between RNA and Protein VPg of Encephalomyocarditis Virus — Yu. F. Drygin and E. Yu. Siyanova 200 249

Volume 51, Number 2, Part 2 February, 1986

Fractionation and Analysis of Extracellular Forms of Pectate Lyase from *Erwinia chrysanthemi* ENA 49 — V. G. Bogush, G. Z. Gaida, T. V. Velikodvorskaya, A. A. Musatova, V. B. Baev, A. Ya. Strongin, A. N. Evtushenkov, Yu. K. Fomichev 212 260

Detection of Neurospecific Protein Sy-1 in Human Brain and Its Regional Localization in Nerve Tissue — M. V. Aksenova, G. Sh. Burbaeva, and T. P. Klyushnik 217 267

Role of SH Groups in Catalytic Activity of Glutamine Synthetase from Pea Leaf Cytosol — N. P. Akent'eva, Z. G. Evstigneeva, A. V. Pushkin, N. A. Solov'eva, and V. L. Kretovich. 222 273

Insulin-Like Substance and Insulin-Degrading Complex of Hemolysate of Human Erythrocytes — V. A. Matulyavichyus, É. I. Vareikis, and L. V. Lashas 226 278

Kinetics of Cytochrome b_2 Oxidation by Electron Acceptors — N. K. Chenas, A. K. Potsyus, A. A. Butkus, Yu. Yu. Kulis, and V. S. Antanavichyus. 233 285

Quaternary Structure and Some Properties of Glutaminase-Asparaginase from *Pseudomonas aurantiaca* — Z. I. Lebedeva, E. A. Kabanova, and T. T. Berezov. 240 293

Regeneration of Xylulose-5-Phosphate in Dihydroxyacetone Cycle of Methanol Assimilation in Yeast — L. V. Bystrykh, S. V. Bykovskaya, and Yu. A. Trotsenko 249 302

Inhibition of Lactate and Malate Dehydrogenase by Dyes Containing Vinyl Sulfone and Chlorotriazine Groups — V. L. Markina, O. F. Sudzhyuvene, I. G. Peslyakas, and D. I. Metelitsa. 252 306

pH-Dependent Changes in Tryptophan and Porphyrin Fluorescence in Apomyoglobin-Protoporphyrin IX Complex and in Metmyoglobin — G. B. Postnikova, E. M. Yumakova, and N. L. Vekshin. 258 313

Incorporation of Cytokinins into DNA of Wheat Seedlings — I. B. Kudryashova and B. F. Vanyushin. 265 321

Effect of Protein–Protein Interactions on Catalytic Properties of Glyceraldehyde-3-Phosphate Dehydrogenase — V. I. Muronets, L. I. Ashmarina, and N. K. Nagradova 272 328

Interaction of Muscle Glycogen Phosphorylase B with F-Actin — N. A. Chebotareva, N. P. Sugrobova, M. V. Ostrovskaya, N. B. Livanova, B. F. Poglazov, and B. I. Kurganov 283 341

Volume 51, Number 3, Part 1 March, 1986

Dependence of the Hormonal Stimulation of Adenylate Cyclase on the Fraction of the Plasma Membrane Accessible for Lateral Displacement of Proteins of the Adenylate Cyclase Complex — A. R. Kazarov, A. A. Rozenkrants, and A. S. Sobolev 287 355

Characterization of the Sulfhydryl Groups of Histone H3 from Calf Thymus Using Mercury-Containing Nitroxyl Radicals — E. M. Mil', S. A. Vlasova, K. E. Kruglyakova, L. P. Kurochkina, and G. Ya. Kolomiitseva 246 364

The Regulatory Site of Inorganic Pyrophosphatase. The Role of Activating Metals in its Manifestation — A. R. Pavlov, A. A. Baikov, and S. M. Avaeva 301 369

Study of the Catalytic Properties of α-Amylase of Morphological Variants of *Bacillus subtilis* R-623 — A. B. Bal'sis, I. V. Bakhmatova, T. K. Chyurlis, A. A. Glemzha, A. P. Sinitsyn, and I. K. Taleborovskaya . 309 378

Electrogenic Transport of Metabolites Through the Inner Membrane of Rat liver Mitochondria, Induced by an Increase in the pH and by a Cytoplasmic Glycopeptide — M. Kh. Gainutdinov, V. V. Konov, K. S. Safarov, and A. K. Kasymov 317 387

Kinetic Mechanism of Multisubstrate Reversible Reactions in Heterogeneous Biocatalytic Systems — N. N. Zueva, K. I. Voivodov, A. N. Verevkin, V. I. Yakovleva, and I. V. Berezin 325 395
Specificity of the Interaction of Isozyme II of Hexokinase with Mitochondrial Membranes — E. M. Muntyan and N. Yu. Goncharova 333 404
Quaternary Structure of Glutamine Synthetases of *Ankistrodesmus braunii* A. S. Rasulov, Z. S. Shakirov, Z. G. Evstigneeva, V. L. Tsuprun, and V. L. Kretovich 342 413
Investigation of the Role of the Enzymes of Xenobiotic Metabolism in the Resistance of Insects to Insecticides — I. N. Leonova, S. V. Nedel'kina N. B. Naumova, and R. I. Salganik 348 420
Investigation of the Enzyme Systems of Detoxification of Insecticides in the Colorado Beetle — I. N. Leonova, S. V. Nedel'kina, and R. I. Salganik 354 426
Investigation of Glutamin(asparagin)ase on *Pseudomonas aurantiaca*, by the Method of Inhibitor Analysis — E. A. Kabanova, Z. I. Lebedeva, and T. T. Berezov 359 432

Volume 51, Number 3, Part 2 March, 1986

Isolation and Characterization of Isocitrate Lyase from Corn Scutellum — A. A. Zemlyanukhin, A. U. Igamberdiev, and E. N. Presnyakova. 369 442
Comparative Study of the Proteins Forming Entomocidal Crystals of *Bacillus thuringiensis* Subspecies *israelensis* — I. A. Zalunin, L. I. Kostina, G. G. Chestukhina, M. E. Bormatova, F. S. Klepikova, O. M. Khodova, and V. M. Stepanov 376 449
Influence of Monovalent Cations on the Ratio of RNA Transcripts with DNA Sequences Differing in Degree of Repetition in Leukemia P-388 Cells — I. M. Danko, V. I. Prima, S. D. Kaz'min, and V. G. Pinchuk. 385 458
Some Properties and the Kinetics of the Interaction of Human Blood Plasma Kallikrein with High- and Low-Molecular-Weight Kininogens — V. F. Nartikova, T. P. Egorova, E. V. Rets, and T. S. Paskhina 390 463
Mechanisms of Synaptosomal Stabilization of α-Tocopherol in the Activation of Lipid Peroxidation — N. G. Davitashvili, A. N. Erin, and L. L. Prilipko 399 472
Nonequivalence of SH-Groups of Mitochondrial Creatine Kinase Essential for Its Activity — L. V. Belousova, S. N. Fedosov, A. P. Rostovtsev, N. N. Zaitseva, and V. D. Myatlev. 405 478
Heat Shock Proteins of the Nuclear Matrix of Chinese Hamster Fibroblasts — T. V. Bul'dyaeva, S. B. Akopov, S. N. Kuz'mina, and I. B. Zbarskii 421 494
Study of the Collagen Proteins of Human Hyaline Cartilage in the Normal State and in Certain Forms of Systemic Bone Dysplasias — I. B. Laibiger, S. P. Feshchenko, E. A. Kozlov, K. D. Krasnopol'skaya, V. V. Burakov, A. A. Del'vig, S. S. Shishkin, and S. S. Rudakov. 432 505
Changes in the Synthesis of DNA, Purine Nucleotides, and the Sensitivity to Glucocorticoids in Lymphoid Cells, Coupled with Disorders of Differentiation and Immune Function in Mice during Tumor Gowth. Thymocytes — G. I. Potapova, S. N. Khramtsova, L. V. Dmitrieva, and V. S. Shapot. 442 516

Volume 51, Number 4, Part 1 April, 1986

Regulatory Peptides as a Functionally Continuous Series I. P. Ashmarin and M. F. Obukhova. 453 531

Study of the Influence of Local Anesthetics on Electron Transport in Pea Chloroplasts — B. K. Semin, M. N. Chudinovskikh, and I. I. Ivanov 466 546
Metabolism of Histones and Nonhistone Proteins of the Nuclei and Chromatin of Liver Cells in Rats of Different Ages — A. I. Klimenko, A. B. Malyshev, and B. V. Kulachenko 472 553
Properties of Mitochondrial F_1-ATPase and Chloroplast CF_1-ATPase at Various Concentrations of the Substrate, Mg-ATP — Sh. A. Dzhakelova, K. R. Uteulin, G. A. Toksobaeva, I. R. Rakhimbaev, and A. T. Ivashchenko. 480 562
Effects of Menadione and Vicasol on Mitochondrial Energetics during Inhibition of the Initial Portions of the Respiratory Chain — V. I. Dedukhova, G. P. Kirillova, E. N. Mokhova, I. A. Rozovskaya, and V. P. Skulachev. 485 567
Immunoglobulins Acquire the Ability to Interact with DNA after Chromatography on QAE-Sephadex — N. I. Sulaeva, I. V. Lekakh, and A. M. Poverennyi 491 574
Biosynthesis of the General form of Monooxygenase Induced by Xenobiotics of the Methylcholanthrene Type in the Rat Liver — I. B. Tsyrlov, O. B. Chasovnikova, A. Yu. Grishanova, and V. V. Lyakhovich 496 579
Formation of Complexes of Lactate Dehydrogenase with Proteins and Polyelectrolytes. Possible Physiological Role — A. Yu. Tsygankov, Yu. A. Motorin, A. E. Dobrushkin, A. D. Vol'fson, A. F. Orlovskii, and K. L. Gladilin. 505 590
Biosynthesis of Fibronectin by Human Embryo Fibroblasts, Transformed by SV-40 Virus — V. M. Belkin, S. M. Volodarskaya, and V. I. Mazurov 511 596
Release of Ca^{2+} Ions from the Sarcoplasmic Reticulum of Skeletal Muscles under the Action of Caffeine — E. V. Men'shikova and V. B. Ritov 517 603

Volume 51, Number 4, Part 2 April, 1986

Phosphorylation and Inhibition of γ-Glutamyl Transferase Activity by cAMP-Dependent Protein Kinase — L. S. Kolesnichenko and N. N. Chernov. 527 612
Nature of Complexing of Glycogen with Iodine in Presence of $CaCl_2$ — L. N. Bobrova. 531 616
Effect of Ethylenediaminetetraacetate on Bacterial Luciferase — Yu. A. Malkov and V. S. Danilov. 536 622
Special Features of Nucleosomal Organization of Chromatin from Rye Seedlings — L. P. Prokulevich, G. I. Kir'yanov, and B. F. Vanyushin. 540 627
Changes in DNA and Purine Nucleotide Synthesis and Sensitivity to Glucocorticoids in Mouse Spleen T- and B-Lymphocytes Coupled with Disturbances in Differentiation and Immune Function during Tumor Growth — S. N. Khramtsova, G. I. Potapova, L. V. Dmitrieva, and V. S. Shapot 547 635
Prostaglandin H Synthase as a Multisubstrate Enzyme. Fluorimetric Study of Kinetics of Enzyme Activity — G. F. Sud'ina, A. T. Mevkh, D. A. Kuznetsov, and S. D. Varfolomeev. 556 644
Alkaloid-Inactivating Enzymes of Blood Plasma — N. R. Elaev, L. D. Evdokimov, and A. V. Ryzhakov. 561 649
Role of Calmodulin (δ-Subunit) in Activation of Phosphorylase Kinase from Rabbit Skeletal Muscles — A. N. Pegova and P. L. Vul'fson . . 566 655
Effect of Perfluorodecalin and Perfluorotributylamine on the Cytochrome P-450 System of the Liver — T. G. Khlopushina, I. E. Kovalev, and E. M. Lysenkova 574 664
Effect of Phosphocreatine on Lysophosphoglyceride Level during Total Ischemia of Rat Myocardium — S. A. Dzhavadov, A. N. Preobrazhenskii, and V. A. Saks. 578 668

Engl./Russ.

Study of Possible Mechanism of Protective Effect of Phosphocreatine on Ischemic Myocardium — A. N. Preobrazhenskii, S. A. Dzhavadov, and V. A. Saks 583 675
Purification and Some Properties of Neutral Phosphatase from a Preparation of Lysoamidase Isolated from a Bacterium of the Pseudomonadaceae Family — A. I. Severin, O. A. Stepnaya, V. I. Krupyanko, and I. S. Kulaev. 591 684

BRIEF COMMUNICATIONS
Phosphorylation of the Light Chains of Myosin from Rabbit Skeletal Muscles Affects the Nature of the Conformational Changes in F-Actin Induced by Heavy Meromyosin — Yu. S. Borovikov, I. Konkol', D. Szczesna, V. P. Kirillina, and K. I. Levitskii. . . 598 691

Volume 51, Number 5, Part 1 May, 1986

Inhibition of the Binding and Activation of the First Component of Human Complement. Action of Synthetic Peptides, Fragments of Immunoglobulins, and Certain Proteins — L. V. Kozlov, M. N. Sizoi, A. A. Zinchenko, and A. V. Levkovskii. 601 707
Induction of Cytochrome P-448 in Liver Microsomes of Inbred Mice after Administration of MCh-Type Xenobiotics — D. V. Mishina, V. M. Mishin, and V. V. Lyakhovich 611 719
Investigation of Deuteroexchange of the Methyl Group of Pyruvate, Catalyzed by Human Serum Albumin — I. I. Stepuro, A. R. Moroz, and T. P. Piletskaya 620 729
Replacement of Histones by Sperm-Specific Proteins (Gametons) at Different Stages of Squid Spermatogenesis — S. N. Kadura, S. N. Khrapunov, S. Yu. Morozov, and G. D. Berdyshev. 628 737
Determination of the Binding Constants of Antibodies Fractionated according to Affinity for Insulin — A. Yu. Karulin, M. M. Dikov, and A. M. Egorov 636 746
An Unusual Estrogen-Binding Liver Protein: Additional Data on the Structural Determinants of Androgenic Ligands — A. N. Smirnov, T. A. Shchelkunova, and V. B. Rozen. 641 751
Properties of the Prolamines of Orchard Grass (*Dactylis glomerata* L.) — A. V. Konarev, I. O. Vvedenskaya, and S. V. Shlyapnikov 644 754
Latent Form of Glutathione Reductase in the Rat Liver — N. N. Chernov. 651 762
Inhibition of the Hydrogenase of *Thiocapsa roseopersicina* by Various Compounds — N. A. Zorin 658 770
Estrogen- and Progestin-Receptor Complexes and Their Interaction with Rat Liver Cell Nuclei during Ontogenesis — E. F. Konoplya, G. L. Luksha, S. K. Savateev, and A. D. Naumov. 663 775
Effect of Heme Ligands of CO and Cyanide on the Reaction Catalyzed by Bacterial Luciferase — V. S. Danilov and Yu. A. Malkov 669 782

Volume 51, Number 5, Part 2 May, 1986

Peculiarities of the Primary Structure of Histone H2b of the Mold Fungus *Neurospora crassa* — O. I. Karpova, N. M. Anan'eva, T. M. Ermokhina, and I. A. Krasheninnikov. 675 788
The Role of Bivalent Cations in the Binding of Hexokinase Isoenzyme II to Mitochondrial Membranes — N. Yu. Goncharova and E. M. Muntyan 687 801
Solubilization of Glycoproteins of Envelope Viruses by Detergents — V. É. Berezin, V. M. Zaides, A. F. Artamsnov, E. S. Isaeva, and V. M. Zhdanov 693 808
Ribulose Diphosphate Carboxylase of the Cyanobacterium *Spirulina platensis* — I. V. Terekhova, I. I. Chernyad'ev, and N. G. Doman 701 816

Inhibition by Pentachlorophenol of Succinate Oxidation by the Respiratory Chain of Bovine Heart Submitochondrial Particles — E. V. Afanas'eva and V. A. Kostyrko. 707 823
Effects of Cations on the Formation of Serine Proteinase by *Bacillus subtilis* — A. V. Artemov, E. L. Barskii, V. A. Melikhovskii, A. V. Nazarenko, and V. D. Samuilov. 713 830
Change in the Mechanochemical Properties of Actomyosin Caused by Desensitization — I. V. Kropacheva, V. P. Korchagin, and N. S. Shelud'ko. 716 834
The Role of Histidine Residues in the Constitutive NAD(P)-Glutamate Dehydrogenase of *Chlorella pyrenoidosa* 82T — L. P. Loseva, M. V. Bendianishvili, V. R. Shatilov, V. V. Shubin, and V. L. Kretovich. 722 840
Inhibition of the Glutamine Synthetase Activity by Biologically Active Derivatives of Glutamic Acid — N. A. Firsova, K. M. Selivanova, L. V. Alekseeva, and Z. G. Evstigneeva 732 850
Regulation of the Catalytic Activity of Glucose-6-phosphate Dehydrogenase in Inverted Micelles of Surfactants — A. N. Eremin, B. M. Kazilyunene, R. K. Vaitkyavichyus, and D. I. Metelitsa. 737 856
Inhibition of Lipid Photooxidation by Melanin — N. L. Sakina, A. E. Dontsov, and M. A. Ostrovskii. 744 864
Purification and Properties of Metalloproteinase of an Enzyme Preparation of Lysoamidase Isolated from Bacteria of the Pseudomonadaceae Family — A. I. Severin, O. A. Stepnaya, and I. S. Kulaev 748 869

Volume 51, Number 6, Part 1 June, 1986

Structure and Functions of Kinetoplast DNA of Trypanosomatids - E. V. Kuz'min and G. N. Zaitseva..... 755 883
Detection of Interlinear Polymorphism of Myocardial Proteins of Mice by Two-Dimensional Electrophoresis - L. I. Kovalev,, S. S. Shishkin, G. L. Ivolgina, P. S. Gromov, and A. N. Shandala..... 765 896
Some Physicochemical Properties of Lytic Proteinase L_2 of Lysoamidase from Bacteria of the Pseudomonadaceae Family - O. A. Stepnaya, A. I. Severin, and I. S. Kulaev..... 777 909
Study of Mechanism of Action of Glutamine Synthetase from Pea Leaf Cytosol Using the Specific Inhibitor Methionine Sulfoxime - N. P. Akent'eva, Z. G. Evstigneeva, A. V. Pushkin, N. A. Solov'eva, and V. L. Kretovich..... 783 916
Catalytic Properties of Aspartate Transaminase - V. M. Kochkina and D. A. Kuznetsov..... 788 921
Effect of pH on Activity of Ribose Phosphate Isomerase from Leaves of Original and Mutant Forms of Cotton and Arabidopsis Plants - N. P. Bakaeva and M. A. Babadzhanova..... 792 926
Ability of Virus SV40 T-Antigen to Replace Interleukin-2, A Specific Growth Factor of T-Lymphocytes - V. V. Kulikov, M. A. Shlyankevich, O. B. Drize, and V. S. Shapot..... 796 931
Effect of Antibodies against Distinctive Rat Liver Estrogen-Binding Protein on Hormone-Binding Activity of This Protein and Steroid Hormone Receptors - A. N. Smirnov, T. A. Shchelkunova, O. V. Smirnova, and V. B. Rozen..... 802 937
Isolation and Properties of Angiotensin-Converting Enzyme from Human Lungs - I. Yu. Sakharov, E. A. Dukhanina, and S. M. Danilov..... 810 946
Regulation of Activity and Catalytic Properties of Homogeneous ($NADP^+$-Dependent) Isocitrate Dehydrogenase from Pea Leaves - T. N. Popova, L. A. Zemlyanukhin, A. T. Eprintsev, and A. A. Zemlyanukhin..... 816 952
Physicochemical Properties and Amino Acid Composition of Highly Purified Preparation of Distinctive Estrogen-Binding Protein from Rat Liver - T. A. Shchelkunova, A. N. Smirnov, and V. B. Rozen.... 822 958

Volume 51, Number 6, Part 2 June, 1986

Effect of Fragments E and D on Plasmin Hydrolysis of Fibrin Clot - T. I. Lezhen and S. A. Kudinov	831	967
Lipid Composition of Immunocompetent Organs of Tumor-Bearing Rats - S. A. Burkhanov, M. M. Shertaev, and T. S. Saatov	834	970
Study of Role of Adenylate Cyclase in Regulation and Efficiency of Energy Transfer from Mitochondria to Hexokinase in Vitro - P. P. Dzheya, A. A. Kal'venas, A. I. Toleikis, and A. K. Prashkyavichyus	837	974
Substrate Specificity of Chlorella with Respect to Biologically Active Derivatives of Glutamic Acid - N. A. Firsova, L. V. Alekseeva, K. M. Selivanova, and Z. G. Evstigneeva	843	980
Isolation, Purification, and Properties of Two Forms of Sorbitol Dehydrogenase from Silkworm Hemolymph - L. E. Rog, A. S. Konichev, and Yu. B. Filippovich	847	985
Effect of Guanidine Chloride on Structure and Functional Properties of Photosynthetic Reaction Centers in Isolated Preparations and membranes of Chromatophores of Nonsulfur Purple Bacteria - Zh. B. Lukshene, V. P. Shinkarev, N. I. Zakharova, V. V. Shubin, and A. A. Kononenko	854	992
Functional Groups of Thiamine Pyrophosphate in Holotransketolase - M. G. Pustynnikov, Kh. Neif, R. A. Usmanov, A. Shellenberger, and G. A. Kochetov	864	1003
Kinetic Study of Oxidase Reaction of Ceruloplasmin - E. L. Saenko, O. B. Siverina, V. V. Basevich, and A. I. Yaropolov	876	1017
Purification and Some Properties of NADP-Dependent Malate Dehydrogenase from Cytoplasm of Bovine Adrenal Cortex - S. B. Senkevich, S. A. Strumilo, and V. V. Vinogradov	882	1023
Immunological Identification and N-Terminal Analysis of HMG Protein from Silkworm - A. A. Karavanov, P. A. Krasnov, Yu. A. Sedkov, O. P. Kuranova, and Yu. B. Filippovich	887	1029
Influence of GDP on Interaction of Transducin with Cyclic Nucleotide Phosphodiesterase and Rhodopsin from Bovine Retinal Rods - V. O. Rybin	892	1035
Conformational Changes in Immunoglobulin M in Media Differing in Acidity - E. D. Kaverzneva and T. M. Kiseleva	898	1042

Volume 51, Number 7, Part 1 July, 1986

Possible Pathways of Lipid Peroxide Reduction in the Liver and Their Intracellular Localization - V. A. Kostyuk	905	1059
Study of the Nature of the Binding of Phosphate Residues of the Phosphorylated Form of Succinyl-CoA Synthetase from Pigeon Breast Muscle - D. S. Valiulina, T. A. Skalbe, and L. N. Matveeva	911	1066
Role of Glutamine in Cobinamide Biosynthesis in Propionibacterium shermanii - A. A. Eliseev, A. V. Pushkin, E. V. Belozerova, and V. Ya. Bykhovskii	916	1072
Interaction of Isozyme II of Rat Skeletal Muscle Hexokinase with Lecithin Liposomes - N. Yu. Goncharova and E. M. Muntyan	921	1077
Isolation of a Hexamer form of Purine Nucleoside Phosphorylase II of E. coli. Comparative Investigation of the Trimer and Hexamer Forms of the Enzyme - Kh. O. Bezirdzhyan, Sh. M. Kocharyan, and Zh. I. Akopyan	928	1085
Coenzyme Metabolism in Rat Liver Transketolase - Z. V. Gorbach, V. L. Kubyshin, S. S. Maglysh, and S. V. Zabrodskaya	935	1093
Localization of Cysteine Residues in the α-Chain of Histidine Decarboxylase of Micrococcus Sp. N. - O. G. Grebenshchikova and V. N. Prozorovskii	940	1100
Stimulation of the Return of Electrons from the Acceptor Portion of Photosystem 2 to Its Donor Portion under Intense Illumination - B. N. Ivanov and V. I. Ovchinnikova	947	1108

Bacteriolytic Enzymes from a Preparation of Lysoamidase Isolated from Bacteria of the Pseudomonadaceae Family - O. A. Stepnaya, A. I. Severin, and I. S. Kulaev..... 954 1117
Isolation of ω-Gliadins Using Chromatography on Thiopropyl-Sepharose - T. I. Odintsova, Ts. A. Egorov, and A. A. Sozinov..... 961 1124
Characteristics of the Heterogeneity of the Physical Properties of the Lipid Phase of the Synaptic Membranes from the Rat Brain Using a Pyrene Fluorescent Probe - I. M. Okun', G. V. Kaler, T. M. Volkovets, N. V. Merezhinskaya, and S. V. Konev..... 968 1132

Volume 51, Number 7, Part 2 July, 1986

Comparative Sensitivity of Two Carboxylesterases from the Reindeer Liver to Certain Inhibitors - A. P. Brestkin, E. B. Nikol'skaya, and É. A. Efimtseva 977 1141
Intracellular Activity and Secretion of Certain Lysosomal Glycosidases of Cultured Human Skin Fibroblasts - T. S. Ivleva, I. D. Belyaeva, and G. Ya. Vidershain..... 985 1150
NAD^+ Kinase of Neurospora crassa: Isolation and Properties - S. Yu. Filippovich, T. P. Afanas'eva, M. S. Kritskii, and V. G. Ivanov..... 990 1156
Regulation of the Activity of Mitochondrial Transhydrogenase by Catecholamines - A. E. Medvedev, L. V. Trufanova, and V. I. Kulinskii.. 998 1165
NMR Study of Succinate Formation from Exogenous Precursors in Anaerobic Rat Heart Mitochondria - O. I. Pisarenko, V. N. Khlopkov, and É. K. Rugge..... 1007 1174
Isolation and Purification of Aldolase from a Rauwolfia serpentinae Tissue Culture - V. P. Komov, N. V. Kirillova, and N. V. Alekseichuk... 1013 1180
Formation of Superoxide Radical Anions by Lupine Chloroplast under Normal and Pathological Conditions - O. M. Mikhailik, A. I. Shevchenko, and L. K. Ostrovskaya..... 1018 1186
Mn^{2+}-Dependent Endonuclease Activity of Chromatin - N. V. Bubnov, A. G. Basnak'yan, and I. I. Votrin..... 1026 1194
Study of the Metabolism of Phosphate-Containing Compounds in the Rat Liver by a ^{31}P-NMR Method under Conditions of Repression of Protein Synthesis - V. E. Yushmanov, Yu. I. Mitrokhin, M. G. Yukhnevich, I. N. Todorov, and L. A. Sibel'dina..... 1035 1203
Production of Inactive Phenylalanine Hydroxylase Protein from Human Liver Autopsy Specimens - V. V. Chestkov, A. V. Laptev, E. M. Danilina, and S. S. Shishkin..... 1041 1210
The Inhibiting Effect of Pertussis Toxin on the Exchange of Guanyl Nucleotides in Transducin of Bovine Retinal Rod Outer Segments - V. O. Rybin and A. A. Gureeva..... 1047 1216
Induction of the Phenobarbital Form of Cytochrome P-450 by Chemically Unrelated Compounds - N. I. Gutkina, V. M. Mishin, and V. V. Lyakhovich..... 1053 1223

Volume 51, Number 8, Part 1 August, 1986

Chemical Fragmentation by o-Iodosobenzoic Acid of α-Chain of Histidine Decarboxylase from Micrococcus sp. n. At Tryptophan Residues - E. A. Alekseeva, O. G. Grebenshchikova, and V. N. Prozorovskii..... 1061 1235
Kinetic Studies of Effect of Substrates on Phosphoribulokinase Activity - I. K. Khasanov, V. V. Ivanishchev, and N. G. Doman..... 1067 1242
Lectin Properties of Galactose Oxidase from Fusarium graminearum IMV-F-1060 - I. Ya. Zakharova, É. A. Kovalenko, and T. T. Buglova..... 1073 1249
Kinetic Characteristics of Activation of Various Structural Forms of Plasminogen by Tissue Activator in Presence of Fibrin - L. D. Taran, E. M. Makagonenko, N. A. Nazarenko, and S. A. Kudinov..... 1079 1256

Catalytic Properties of Catalase and Its Conjugate with Strophantin K in Ethanol Oxidation by Cumyl Hydroperoxide - E. I. Plyugacheva and D. I. Metelitsa..... 1084 1262
Production and Properties of Prostaglandin H Synthetase Immobilized in Insoluble Polyelectrolyte Complexes - D. B. Kirpotin, Yu. A. Motorin, A. T. Mevkh, S. D. Varfolomeev, A. F. Orlovskii, and K. L. Gladilin.... 1089 1268
Formation of Intermediates of Tricarboxylic Acid Cycle and Ammonia from Free Amino Acids in Anoxic Myocardium - O. I. Pisarenko, E. S. Solomatina, and I. M. Studneva..... 1096 1276
Resistance of Structure and Antigenic Determinants of Native Hexon of Type 1 Adenovirus to Protease - E. K. Kiseleva, S. N. Khil'ko, V. G. Grigor'ev, N. S. Dyachenko, N. P. Vantsak, and T. I. Tikhonenko.. 1105 1286
Potential-Dependent Passive Calcium Transport in Vesicles of Myocardial Sarcolemma - Z. D. Vorobets, S. Yu. Puzyrev, and M. D. Kurskii..... 1112 1295
Effect of Cobalt Chloride on Activity of Key Enzymes of Heme Metabolism in Rat Liver - P. A. Kaliman and I. V. Belovetskaya..... 1119 1302
Gangliosides of Murine B-Lymphoma Mopc-406 - É. V. Dyatlovitskaya, O. G. Somova, L. S. Kogtev, and L. D. Bergel'son..... 1124 1308
Detection of Transaminase Activities in Mitochondria of the Yeast E. magnusii - R. A. Zvyagil'skaya, N. N. Perlova, and É. I. Vyskrebentseva..... 1130 1315

Volume 51, Number 8, Part 2 August, 1986

Incorporation of Labeled Formate into Rat Liver Mitochondrial Proteins and Initiation of Protein Synthesis - Ya. M. Rabinovich and O. A. Bezborodova..... 1137 1322
Activation of Calcium Transport into Synaptosomes by Phospholipase C Specific for Phosphatidylinositols - V. I. Brusovanik, A. A. Selishcheva, L. L. Prilipko, Yu. P. Kozlov, and V. V. Kulene..... 1143 1329
Change in the Properties of the Opiate Receptors of the Brain under Conditions of Habituation of Rats to Morphine - S. V. Zaitsev, M. G. Sergeeva, O. N. Chichenkov, V. E. Petrov, and S. D. Varfolomeev..... 1147 1334
Comparative Characteristics of Human Interleukin-2 Preparations Obtained from Various Sources - M. S. Iobadze, V. V. Kulikov, T. A. Kupriyanova, S. N. Bykovskaya, and V. I. Bakhutashvili..... 1153 1341
Investigation of the Protein-Peptide Composition of the Secretory Granules of Bovine Lactogenic Hormone - L. V. Nagornaya, E. A. Kizim, G. M. Kravtsov, V. V. Tsibezov, and V. A. Vinogradov..... 1160 1348
Peroxidase Activity of Catalase, Modified by Progesterone - V. D. Artemchik, V. D. Matveentsev, and D. I. Metelitsa..... 1165 1355
Proteins Bound to Polyribosomal mRNA of the Embryonic Axis of Kidney Bean Seeds - V. M. Pushkarev and A. P. Galkin..... 1171 1362
Study of the Conditions of Activation and Stabilization of Shigella sonnei 47 DNA Methylases in the Process of Fractionation, Purification, and during Storage - S. V. Suchkov, N. G. Lopatina, E. E. Arutyunyan, I. I. Nikol'skaya, and S. S. Debov..... 1178 1369
Comparison of the Peptide Map and Functional Properties of Monooxygenases Induced by 3-Methylcholanthrene and ß-Naphthoflavone - O. B. Chasovnikova, V. M. Mishin, and I. B. Tsyrlov..... 1185 1377
Influence of pH on the Regulatory Characteristics of the Energy Metabolism of Human Erythrocytes - O. V. Platonova, V. A. Agranenko, F. I. Ataullakhanov, V. M. Vitvitskii, N. V. Kiyatkina, A. V. Pichugin, and E. I. Sinauridze..... 1192 1384
Stability of Lipid Oxidation Products in the Rat Liver and Pathways of Their Utilization - V. A. Kostyuk..... 1200 1392
Active Transport of Na^+ by Reconstituted Na,K-ATPase - A. A. Boldyrev and I. A. Svinukhova..... 1206 1398

Volume 51, Number 9, Part 1 September, 1986

Inactivation of the Succinate-Ubiquinone Reductase Portion of the Mitochondrial Respiratory Chain by Pyridoxal Phosphate - Z. M. Choudri, A. B. Kotlyar, and A. D. Vinogradov..... 1213 1411

Soluble Metal-Containing Proteins of Pseudomonas aeruginosa - M. G. Kamalyan, A. V. Karapetyan, and R. M. Nalbandyan..... 1221 1420

Affinity Modification of Creatine Kinase and ATP-ADP Translocase in Heart Mitochondria: Determination of Their Stoichiometric Ratio - A. V. Kuznetsov and V. A. Saks..... 1226 1426

Absence of Dissociation of Inorganic Pyrophosphatase from E. coli and Association of Its Subunits in the Course of the Enzymatic Reaction - I. B. Borshchik, P. V. Kalmykov, V. Ya. Chernyak, V. A. Sklyankina, and S. M. Avaeva..... 1237 1438

Use of Bioelectrochemical Systems for the Synthesis of Steroids - A. I. Yaropolov, A. L. Gindilis, E. A. Borman, and K. A. Koshcheenko..... 1241 1442

Presence of Glycogen Synthase in Preparations of Kinase Phosphorylase Isolated from Rabbit Skeletal Muscles - S. A. Shur, L. K. Skolysheva, and P. L. Vul'fson..... 1244 1446

Factors Determining the Selectivity in Cytochrome P-450-Catalyzed Reactions of Alkane Oxidation - E. I. Karasevich and A. M. Khenkin..... 1251 1454

Interaction of C_{14}- and C_{16}-Unsaturated Aliphatic Aldehydes with Bacterial Luciferase - G. N. Sakharov, A. D. Ismailov, B. G. Kovalev, V. S. Danilov, and N. S. Egorov..... 1255 1459

Comparative Investigation of Glyceraldehyde-3-Phosphate Dehydrogenases, Isolated from Rabbit Skeletal Muscles and from Baker's Yeast, with the Aid of Cationic Fluorescent Probes - V. I. Klichko, M. V. Ivanov, and N. K. Nagradova..... 1260 1465

Serine Proteinase II from Acremonium chrysogenum - V. M. Stepanov, G. N. Rudenskaya, L. I. Vasil'eva, I. N. Krest'yanova, O. M. Khodova, and Yu. É. Bartoshevich..... 1270 1476

Structural Organization of Inorganic Pyrophosphatase from E. coli - I. B. Borshchik, N. N. Magretova, V. Ya. Chernyak, V. A. Sklyankina, and S. M. Avaeva..... 1277 1484

Volume 51, Number 9, Part 2 September, 1986

Estimation of the Limits of Enantioselectivity of Enzyme Action in the Transformations of Amino Acids and Their Derivatives - V. K. Shvyadas, I. Yu. Galaev, and I. V. Berezin..... 1283 1490

Cleavage of DNA Adsorbed on the Surface of Phospholipid Membranes by Type II Restriction Endonucleases - V. G. Budker, S. Kh. Degtyarev, and A. V. Sokolov..... 1288 1496

Fatty Acid Composition of Total Lipids and Phospholipids of Membrane Preparations of Transport ATPase - Yu. A. Blyudzin, L. M. Osad'aya, and A. A. Boldyrev..... 1292 1499

Isolation and Characterization of an Endogenous Protein Inhibitor of Multiple Forms of Neutral Ribonuclease from Silkworm Eggs - A. S. Konichev, V. G. Ivanov, I. K. Proskurina, and Yu. B. Filippovich..... 1297 1506

mRNA of α-Amylase, Induced in Cells of the Aleurone Layer of Barley by Gibberellic Acid. Isolation, Immunochemical Purification, and Reverse Transcription - A. G. Artyushevskii, G. I. Kir'yanov, A. M. Kopylov, and V. A. Noskov..... 1303 1513

Characterization of the N-Terminal Amino Acid Sequence of α-Prolamine from Dactylis glomerata L. - I. O. Vvedenskaya, S. V. Shlyapnikov, and A. V. Konarev..... 1309 1519

Study of the Functional Groups of Clostridiopeptidase - T. O. Balaevskaya N. I. Solov'eva, and V. N. Orekhovich..... 1312 1523

Gross Immunoreactivity of Two Secretable Yeast Glycoproteins — Invertase and Acid Phosphatase - A. A. Komar, O. V. Karpova, N. S. Kovaleva, and V. V. Yurkevich..... 1318 1530
Some Kinetic and Spectral-Fluorescent Properties of NADP-Dependent Malate Dehydrogenase from the Cytoplasm of the Bovine Adrenal Cortex - S. B. Senkevich, S. A. Strumilo, I. B. Zavodnik, and V. V. Vinogradov..... 1322 1534
Threonyl-tRNA Synthetase of Rabbit Reticulocytes: Reversible Transition from the RNA-Nonbinding to the RNA-Binding Form - A. N. Fedorov, A. G. Ryazanov, and L. P. Ovchinnikov..... 1328 1541
A Nonantioxidant Mechanism of the Stabilization of Cytochrome P-450 by α-Tocopherol: Effectiveness in Vitamin E Deficiency - R. I. Viner, K. N. Novikov, Yu. B. Arkhipenko, V. I. Skrypin, Yu. P. Kozlov, V. B. Spirichev, and V. E. Kagan..... 1335 1549
Proteoglycans of Animal Tissues and Their Influence on DNA Synthesis - N. P. Zimina and V. I. Rykova..... 1339 1555
Metabolic Changes Leading to the Oxidative Lysis of Erythrocytes Maintained in a Normal State in Vitro - F. I. Ataullakhanov, V. M. Vitvitskii, A. M. Zhabotinskii, A. B. Kiyatkin, A. V. Pichugin, and E. I. Sinauridze..... 1345 1562

Volume 51, Number 10, Part 1 October, 1986

Inhibition of Replicative DNA Synthesis by Nucleosides. Their Synthetic Analogs, and Inhibitors of DNA Methylation in Initial Leaf of Etiolated Wheat Seedlings - V. V. Ashapkin, N. I. Aleksandrushkina, M. D. Kirnos, and B. F. Vanyushin..... 1353 1587
Metal-Nucleotide Specificity of ATP:Thiamine Diphosphate Phosphotransferase from Brewer's Yeast - I. P. Chernikevich, V. S. Luchko, and A. I. Voskoboev..... 1360 1595
Post-Transcriptional Association of Newly Synthesized Ribonucleoproteins with Chromatin. Influence of Cytosol on Transport of mRNP from Isolated Wheat Germ Nuclei - V. M. Pushkarev and A. P. Galkin..... 1364 1600
Catalytic Properties and Interaction with Affinity Inhibitors of Trimeric Form of Inorganic Pyrophosphatase From E. coli - I. B. Borshchik, V. A. Sklyankina, and S. M. Avaeva..... 1370 1607
Stability of Glucose-6-Phosphate Dehydrogenase and Horseradish Peroxidase in Enzyme—Surfactant—Heptane Systems Simulating Membrane Lipid-Protein Ensembles - A. N. Eremin and D. I. Metelitsa..... 1375 1612
Activation of Protein Kinase C and cAMP-Dependent Protein Kinases in Hormone-Dependent Mammary Gland Tumors upon Stimulation of Growth by Progesterone and Estrone - T. M. Morozova, R. L. Mitina, Z. B. Ozhogina, and O. M. Sidorkina..... 1386 1624
Effect of Hydrocortisone on Phospholipid Composition and Activity of Some Enzymes of Phospholipid Metabolism in Rat Liver Nuclear Membranes - É. S. Gevorkyan, Yu. V. Tadevosyan, Zh. V. Yavroyan, and G. A. Gevorkyan..... 1392 1630
Purification, Quarternary Structure, and Properties of Glutamine Synthetase from Nostoc muscorum - M. S. Turukhanova, Z. G. Evstigneeva, V. L. Tsuprun, S. M. Khodzhibaeva, and V. L. Kretovich..... 1396 1635
Cloning and Nucleotide Sequence of cDNA for Bovine α_{s1}-Casein - S. I. Gorodetskii, V. M. Zakhar'ev, D. R. Kyarshulite, T. V. Kapelinskaya, and K. G. Skryabin..... 1402 1641
Isolation, Purification, and Properties of Cytochrome P-450 from Yeast of the Genus Candida Grown on n-Alkanes - Yu. I. Sokolov, S. M. Avetisova, and E. R. Davidov..... 1410 1649
Desaturation of Linoleic Acid in Psychrophilic Yeast - E. G. Davidova, L. D. Balashova, and A. P. Belov..... 1416 1655
Effect of Reduction of Interchain Disulfide Bridge on Enzymatic Activity and Structure of Human Thrombin - A. A. Sereiskaya, T. V. Osadchuk, A. I. Kornelyuk, S. B. Serebryani, and S. A. Atepalikhina..... 1420 1659

Functionally Important Amino Acid Residues in Chymotrypsin Inhibitor from Gleditsia triacanthos L. - T. A. Valueva, G. V. Kladnitskaya, and V. V. Mosolov..... 1428 1667

Volume 51, Number 10, Part 2 October, 1986

Conditions of Biosynthesis, Isolation, and Properties of NAD-Dependent Alcohol Dehydrogenase from Candida methylica - T. V. Avilova, O. A. Egorova, T. V. Novikova, and A. M. Egorov..... 1435 1673
Properties of Acid Endoribonuclease from Walleye Pollack Liver - Yu. V. Fedosov and V. A. Rasskazov..... 1442 1682
Isolation and Some Properties of Soluble and Membrane-Bound Acid RNase from Rat Brain Lysosomes - G. A. Nechaeva..... 1448 1688
Heparin-Induced Release of Ca^{2+} Ions from Skeletal Muscles. Relationship to Ca^{2+-} and Caffeine-Induced Release of Ca^{2+} - E. V. Men'shikova, V. B. Ritov, and Yu. P. Kozlov..... 1455 1696
Evidence of Oxidation of Unsaturated Fatty Acids in Cataracts - M. A. Babizhaev and L. F. Linberg..... 1460 1702
Brain-Specific Proteins of Group S100 and the Reception of Neuromediators by Rat Brain Membrane Preparations - M. A. Gruden' and A. B. Poletaev.. 1466 1708
Age-Specific Differences in Metabolism of Fatty Acid Components of Nuclear Phospholipids - V. N. Nikitin, N. A. Babenko, L. Ya. Popova, and V. V. Petrunyaka..... 1471 1714
Determination of Quantitative Parameters of Binding of Protein F (Phosphofruotokinase) to Myosin and Localization of Binding Sites on Myosin Molecule - N. A. Freidina, M. D. Shpagina, and Z. A. Podlubnaya..... 1475 1718
Kinetic Mechanism of Action of ß-Glucosidase from Aspergillus foetidus: Evidence in Support of Existence of Different Binding Sites for Cellobiose and p-Nitrophenyl-ß-D-Glucopyranoside - I. G. Mar'yanovskaya, M. L. Rabinovich, I. S. Kulaev, and A. A. Klesov..... 1483 1726
Modification of Porcine Pepsin and Pepsinogen by p-Nitrophenyldiazonium Chloride - E. N. Petrova, G. I. Lavrenova, N. I. Tarasova, E. A. Timokhina, and V. M. Stepanov..... 1488 1732
Steady-State Kinetics of Chains of Coupled Cyclic Reactions - V. I. Zvalinskii and F. F. Litvin..... 1496 1741

Volume 51, Number 11, Part 1 November, 1986

Kinetic Peculiarities of Tyrosine Synthesis Catalyzed by Free and Immobilized Bacterial Cells. Influence of Mass Transport of Reagents on the Kinetics of Tyrosine-Phenol Lyase in Cells - I. V. Tysyachnaya, M. Kh. Rodriges, V. I. Yakovleva, and I. V. Berezin..... 1509 1768
Purification, Structure, and Properties of Glutamine Synthetase III From Rhizobium lupini Bacteriods - G. É. Shiffelova, A. V. Pushkin, N. A. Solov'eva, V. L. Tsuprun, and V. L. Kretovich..... 1516 1776
Physicochemical Properties and Quaternary Structrue of Chick Pea Leaf Carboanhydrase - D. A. Aliev, N. M. Guliev, T. G. Mamedov, and V. L. Tsuprun..... 1524 1785
Purification, Properties, and Regulation of Glutamine Synthetase from the Plant Fraction of Lupinus luteus Root Nodules - N. T. Lomkatsi, N. A. Solov'eva, É. É. Kim, A. V. Pushkin, and V. L. Kretovich..... 1534 1795
Study of the Influence of ATP on the Activity of Membrane-Bound Chitin Synthase of the Yeast Saccharomyces carlsbergensis - V. M. Vagabov, V. V. Lupashin, I. N. Knyazeva, and I. S. Kulaev..... 1540 1802
Separation and Investigation of the Immunochemical Properties of Multiple Forms of Rat Liver Cytochrome P-450 - V. N. Nechaev, L. R. Ptitsyn, A. A. Kabishev, L. A. Ryazanova, L. I. Patrushev, and A. N. Saprin..... 1548 1811

Identification and Characterization of mRNA of Rat Liver Cytochrome P-450, Induced by Phenobarbital and 3-Methylcholanthrene - A. A. Kabishev, V. N. Nechaev, L. A. Ryazanova, L. R. Ptitsyn, N. V. Batchikova, L. I. Patrushev, and A. N. Saprin..... 1557 1821
Activator of NAD Kinase from Rabbit Liver – Glutamate Dehydrogenase - O. L. Voronina, E. R. Bulygina, and V. I. Telepneva..... 1564 1829
Production and Molecular Kinetic Properties of an Angiotensin-Converting Enzyme from the Human Heart - I. Yu. Sakharov, S. M. Danilov, and E. A. Dukhanina..... 1570 1836

Volume 51, Number 11, Part 2 November, 1986

Characteristics of Specific Proteins of the Intermediate Filaments in Human Brain Tumors - V. S. Nedzvetskii, V. A. Berezin, T. I. Obernyak, and E. N. Zhmareva..... 1577 1843
Inhibiting Effects of Dinitrosyl Complexes of Iron with Low-Molecular-Weight Ligands on Platelet Aggregation - P. I. Mordvintsev, V. G. Rudneva, A. F. Vanin, L. L. Shimkevich, and B. I. Khodorov..... 1584 1851
Investigation of the Surface of the Ribosomes and Ribosomal Subparticles of Escherichia coli by the Method of Tritium Bombardment - M. M. Yusupov and A. S. Spirin..... 1590 1858
Influence of Various Phytohormones on the Replicative Synthesis of Nuclear DNA in the S Phase of Cells of the First Leaf of Etiolated Wheat Seedlings - N. A. Artyukhovskaya, N. I. Aleksandrushkina, V. V. Ashapkin, M. D. Kirnos, and B. F. Vanyushin..... 1600 1868
Influence of Phytohormones on Replicative and Postreplicative Methylation of Nuclear DNA in the S Phase of the Cell Cycle of Cells of the First Leaf of Etiolated Wheat Seedlings - M. D. Kirnos, N. A. Artyukhovskaya, N. I. Aleksandrushkina, V. V. Ashapkin, and B. F. Vanyushin..... 1607 1875
Mechanism of the Activation of cAMP-Dependent Protein Kinase. Covalent Modification of the Holoenzyme by Dimethyl Suberimidate - A. R. Abduragimov, V. V. Tyurkin, S. N. Kochetkov, and E. S. Severin..... 1617 1886
Cationic Control of the Transcription of Certain Genes in Tumor Cells - S. D. Kaz'min and I. A. Smirnova..... 1623 1893
Immobilized Active Momomers of D-Glyceraldehyde-3-phosphate Dehydrogenase from Rabbit Skeletal Muscles and Their Coenzyme-Binding Properties - I. V. Duzhenkova, R. A. Asriyants, V. I. Muronets, and N. K. Nagradova..... 1628 1899
Functional Carboxyl Group in the Active Site of Transketolase - A. N. Kuimov, L. E. Meshalkina, and G. A. Kochetov..... 1636 1908

Volume 51, Number 12, Part 1 December, 1986

Three-Cycle Mechanism of the Respiratory Chain - V. P. Skulachev..... 1647 1925
Biological Significance of Histidine-Containing Dipeptides - A. A. Boldyrev..... 1651 1930
Succinate-Ubiquinone Reductase Segment of Respiratory Chain - A. D. Vinogradov..... 1663 1944
Glycogen Phosphorylase from Skeletal Muscles - P. L. Vul'fson..... 1689 1974

Volume 51, Number 12, Part 2 December, 1986

Heart and Skeletal Muscle Troponin: Some Structural Features and Properties - N. B. Gusev..... 1707 1993

Structure and Mechanism of Action of Transketolase - G. A. Kochetov..... 1721 2010
Role of Oligiomeric Structure in Functioning of D-Glyceraldehyde-3-phosphate Dehydrogenase - N. K. Nagradova..... 1738 2030
α-Keto Acid Dehydrogenase Acid Dehydrogenases from Pigeon Breast - L. S. Khailova and V. S. Gomazkova..... 1758 2054